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EXAMINER

NGUYEN, TANH Q

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/777,003

Applicant(s)

BAKER ET AL.

Examiner

Tanh Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on May 4, 2005 (RCE and IDS).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/06/04; 05/04/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on May 4, 2005 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 41 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original specification for "a plurality of modules including an interface unit, which is capable of controlling a first host processor". If applicant believes otherwise, applicant is required to point out specifically where to find such support in the specification.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gibson (USP 6,414,687)** in view of **Kusters (USP 5,819,112)**.

6. As per claims 19, 28, **Gibson** teaches an integrated multimedia system [FIG. 1] having a multimedia processor [224, FIG. 1; 224, FIG. 2] disposed in an integrated circuit [ASIC chip: col. 8, lines 66-67], said system comprising:

a first host processor system [202, FIG. 1] coupled to said multimedia processor;

a second local processor [235, FIG. 2] disposed within said multimedia processor for controlling the operation of said multimedia processor [col. 10, line 67-col. 11, line 1];

a data transfer switch [249, 252, FIG. 2] disposed within said multimedia processor and coupled to said second processor for transferring data to various modules of the multimedia processor [235, 236, 238, 246,..., FIG. 2; col. 9, lines 32-36; col. 11, lines 1-9; col. 87, lines 47-50; col. 110, lines 49-51];

a data streamer [246, 247, 248, 249, 250, FIG. 2] disposed within said multimedia processor and coupled to said data transfer switch, said data streamer having a scheduling logic [811, FIG. 109; col. 78, lines 2-7; col. 77, lines 55-57] that is

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configured to schedule simultaneous data transfers among a plurality of modules [230/240, 241, 242, 243, 249/236/237/238, 250, 252/236/238, ... FIG. 2] disposed within said multimedia processor, at least one of which is a cache memory [230, FIG. 2] in accordance with corresponding channel allocations [col. 50, lines 50-65; col. 51, lines 40-45; col. 79, lines 4-9; FIGs. 111-114; col. 78, line 32-col. 79, line 3; col. 87, line 40-col. 88, line 48];

an interface unit coupled to said data streamer having a plurality of I/O device driver units [236, 237, 238, 239, FIG. 2]; and

a plurality of external I/O devices [226, 227, Fig. 1] coupled to said multimedia processor.

Gibson, therefore, discloses the invention except for a multiplexer coupled to the interface unit providing access between a selected number of the I/O device driver units and a plurality of external I/O devices coupled to the multimedia processor via output pins.

**Kusters** teaches a method that uses a multiplexer [30, FIG. 1] coupled to an interface [18, 20, FIG. 1] of a computer system [8, FIG. 1] for providing access between a selected number of I/O device driver units [38a,...,38n, FIG. 1] and external I/O devices [32a,...,32n, FIG. 1] via output pins (parallel I/O port, Abstract). Kusters further teaches the above method not being limited to any particular computer, single chip processor or apparatus; and also teaches a specialized apparatus to perform the methods above (col. 8, lines 4-14). Kusters, therefore, teaches a multiplexer being usable with a single chip multimedia processor, such multiplexer being either on the same chip as the

multimedia processor, or external to the multimedia processor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a multiplexer disposed within a multimedia processor and coupled the interface of the multimedia processor, as is taught by Kusters for the purpose of providing access between a selected number of I/O device driver units and a plurality of external I/O devices via a limited number of output pins of the multimedia processor - as such combination enables multiple external I/O devices to be used simultaneously with a same set of pins.

7. As per claims 20-27, 29-36, 37-44, Kusters teaches the plurality of external I/O devices [32a,...,32n, FIG. 1] being controlled by a corresponding one of a plurality of device driver units [38a,...,38n, FIG. 1];

Gibson teaches a video coder/decoder [241, FIG. 2] outputting processed data [col. 9, lines 54-56] to an external I/O device [237, FIG. 2] and receiving data from the external I/O device [237-236-252-246-241, FIG. 2] via the data transfer switch [249, 252, FIG. 2]. Since NTSC is the standard for encoding/decoding color television signal, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a NTSC encoder/decoder as one of the external devices in order to display the picture image in color on a television monitor, and to receive image data from a television monitor;

Kusters teaches one of the external devices being a modem [col. 4, lines 6-9], with modems being known in the art at the time the invention was made to demodulate wireless communications signals, and with a transport channel interface being interface

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well known in the art at the time the invention was made for modems;

Gibson teaches a video coder/decoder [241, FIG. 2], and an external video display device, hence teaches the multimedia processor providing video signals to the external video display device. Since it was well known in the art at the time the invention was made for multimedia processor to provide 3-D signals to an external video display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to provide 3\_D signals in the multimedia processor in order to provide 3-D display on the external video display device;

the combination of Gibson and Kusters does not teach one of the external devices being an ISDN interface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an ISDN interface as one of the external device in order to allow the multimedia processor to communicate in an ISDN environment, which is superior to a standard telephone line environment;

the combination of Gibson and Kusters does not teach one of the external devices being an audio CODEC. Since it was well known in the art at the time the invention was made for a multimedia processor to communicate with an external audio CODEC, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an audio CODEC to allow the system to receive and transmit audio signals;

Gibson teaches the cache memory [230, FIG. 2] being directly coupled to the second local processor [235-231, FIG. 2] and the data transfer switch [252-240, FIG. 2];

the interface unit being capable of controlling the external I/O devices (see rejections to claims 19, 28 above), and comprising a memory controller [236, FIG. 2] which is capable of controlling an external memory [223, FIG. 1];

the interface unit comprising an interface which is capable of communicating with the first processor [238, FIG. 2]; and

the data transfer switch comprising a plurality of buses [FIG. 2].

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 19-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7 of copending Application No. 10/867,868 in view of Gibson.

10. As per claims 19, 28, 37-44, claims 1, 7 of copending Application No. 10/867,868 teach all the limitations of claims 19, 28, except for one of the plurality of modules



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disposed within the multimedia processor being a cache memory. Gibson teaches a one of a plurality of modules disposed within a multimedia processor being a cache memory [230, FIG. 2] that is used to store recently used values that are likely to be subsequently utilized by the multimedia processor [col. 9, lines 47-49]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cache memory in the multimedia processor in order to store recently used values that are likely to be subsequently utilized by the multimedia processor.

Gibson further teaches the limitations of claims 37-44 (see 103 rejections above).

11. As per claims 20-27, 29-36, the combination of claims 1, 7 of copending Application No. 10/867,868 and Gibson does not teach the limitations of claims 20, 29 - the external I/O devices being controlled by a corresponding one of the I/O device driver units. Since it was known in the art to for an external I/O device to be controlled by a corresponding I/O device driver unit to communicate properly, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the external I/O devices to be controlled by a corresponding one of the I/O device driver units - in order for the external devices to communicate correctly;

Since NTSC is the standard for encoding/decoding color television signal, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a NTSC encoder/decoder as one of the external devices in order to display the picture image in color on a television monitor, and to receive image data from a television monitor;

Since modems were known in the art at the time the invention was made to

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demodulate wireless communications signals, and since a transport channel interface was known in the art at the time the invention was made as an interface for modems, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a modem capable of demodulating wireless communications signals to allow for wireless communications.

Gibson teaches a video coder/decoder [241, FIG. 2], and an external video display device, hence teaches the multimedia processor providing video signals to the external video display device. Since it was well known in the art at the time the invention was made for multimedia processor to provide 3-D signals to an external video display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to provide 3\_D signals in the multimedia processor in order to provide 3-D display on the external video display device;

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an ISDN interface as one of the external device in order to allow the multimedia processor to communicate in an ISDN environment, which is superior to a standard telephone line environment;

Since it was well known in the art at the time the invention was made for a multimedia processor to communicate with an external audio CODEC, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate an audio CODEC to allow the system to receive and transmit audio signals.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Quang Nguyen whose telephone number is (703) 305-0138, (or (571) 272-4154 after October 12, 2004) and whose e-mail address is [tanh.nguyen36@uspto.gov](mailto:tanh.nguyen36@uspto.gov). The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached on (703) 308-3301 (or (571) 272-2100 after October 12, 2004). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for After Final, Official, and Customer Services, or (703) 746-5672 (or (571) 273-4154 after October 12, 2004) for Draft to the Examiner (please label "PROPOSED" or "DRAFT").


Effective May 1, 2003 are new mailing address is:

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